Gas—continued*
evolution of, during casting, 243 occluded in iron, 234—236 Producer, with high hydrogen content, 53 Steam-air-, 31, 47
8
HARBORD, experiments by, at Bilston, 173, 192 Heat, consumption of, effect of impurities in iron on, 202 et seq. effect of use of Fe20s on, 212 et seq. influence of quality of gas on, 119 et seq. loss of, in waste gases, 125
transmission of, in open-hearth iurnaces, 113 et seq. work done by, in open-hearth furnaces, 196 Hydrogen, formation of, in water gas, 28—32

IRON, gases occluded in, 234—236
influence of impurities in, on heat consumption, 199 et seq. peroxide, action of, on impurities in iron, 211, 212
effect of, on growth and shrinkage of charge, 223 et seq.
KRUPP process of dephosphorising iron, 217

MANGANESE, action of, on sulphur hi iron, 169 as deoxidising agent, 237 oxidation of, 161
Methane, action of carbonic acid on, 39
Monell process, 267
NASKE, researches by, on basic open.hearth process, 276 et seq. Nitrogen, ratio of, in producer gas an index as to how gas has been produced, 31
OPEN-HEARTH furnace, influence of quality of gas on heat in, 119 et seq.
loss of heat in waste gases, 125
methods of testing, and judgment of working of, 229 et seq.
path of gases in, 15
regulation of temperature in, 127 et seq.
temperatures and transmission of heat In, 113
et seq.
Open-hearth process versus Pneumatic, 302 et seq. Ore-lime slags, 150